UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,544	09/23/2003	Thaddeus John Gabara	90-6	2117

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EXAMINER
CASCA, FRED A

ART UNIT	PAPER NUMBER
2687	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/668,544	GABARA ET AL.
	Examiner	Art Unit	
	Fred A. Casca	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-20* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *20 October 2003* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some *   c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *09/23/03*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 20050721

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-5, 8, 10-12, 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889

A1, Karaoguz.

Referring to claim 1, Cervello discloses a method for use in a wireless network

comprising a plurality of user devices adapted for communication with at least one access point

device (FIG. 1 and Abstract, "system for dynamically selecting a communication link"), the

method comprising the steps of initiating a test of a communication link between at least one of

the user devices and the access point device (FIG. 1, Abstract, and paragraphs 0008-0010,

"determining whether a new channel to be used by the plurality of wireless station is needed").

Cervello does not specifically disclose generating, based at least in part on a result of the

test, an instruction displayable to a user associated with a given one of the user devices, the

instruction being indicative of a location at which the given user device is expected to obtain a

particular level of data throughput performance.

Karaoguz discloses a method of determining optimal cell configuration based upon

determined device location, which comprises generating, based at least in part on a result of the

test, an instruction displayable to a user associated with a given one of the user devices, the

instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", "a recommendation signal", "Access Point", note that instruction indicative of an optimal location is recommended. Further note that an evaluation and assessment (testing) of what is the optimal location is performed).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance, as suggested by Karaoguz, motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

Referring to claim 2, the combination of Cervello/Karaoguz disclose the method of claim 1, and further disclose the test comprises a test of a communication link between the given user device and the access point device (Cervello, Abstract, and paragraphs 0008-0010, "determining whether a new channel to be used by the plurality of wireless station is needed").

Referring to claim 3, the combination of Cervello/Karaoguz disclose the method of claim 1, and further disclose the test comprises a test of a communication link between one of the user devices, other than the given user device, and the access point device (Cervello, FIG. 1 and,

paragraphs 0008-0010, 0023, note access point (AP) 2 is coupled to a plurality of mobile

stations).

Referring to claim 4, the combination of Cervello/Karaoguz disclose the method of claim

1.

Cervello does not specifically disclose the location comprises a location at which the

given user device is expected to obtain a maximum achievable level of data throughput

performance.

Karaoguz discloses the location comprises a location at which the given user device is

expected to obtain a maximum achievable level of data throughput performance (Abstract, 0006,

0041-0042, "optimal location information", "optimal locations").

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to modify the method of Cervello by providing the location to comprise a location at

which the given user device is expected to obtain a maximum achievable level of data

throughput performance, as suggested by Karaoguz, motivation being for the purpose of

providing the maximum available signal strength for the user, and consequently making wireless

users happy.

Referring to claim 5, the combination of Cervello/Karaoguz disclose the method of claim

1.

Cervello does not disclose the given user device is at a current location, and the instruction is indicative of another location associated with an improved level of data throughput performance relative to that of the current location.

Karaogus discloses that the given user device is at a current location, and the instruction is indicative of another location associated with an improved level of data throughput performance relative to that of the current location (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", note that one or more optimal location information is provided).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing the given user device to be at a current location, and the instruction to be indicative of another location associated with an improved level of data throughput performance relative to that of the current location, as suggested by Karaoguz, motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

Referring to claim 8, the combination of Cervello/Karaoguz disclose the method of claim 1, and further disclose the test comprises a test of at least one of an uplink communication channel between the user device and the access point device and a downlink communication channel between the user device and the access point device (Cervello, Abstract, and paragraphs 0008-0010, "RSSI", note that signal strength is tested to determine best access point, hence at least one of an uplink communication channel between the user device and the access point

device and a downlink communication channel between the user device and the access point device is tested).

Referring to claim 10, the combination of Cervello/Karaoguz disclose the method of claim 1, and further disclose the test comprises a test sequence involving the transmission of a plurality of known packets at different bit rates between the at least one user device and the access point device (Cervello, Abstract, 0008-0009 and 0036, "packet error rate PER").

Referring to claim 11, the combination of Cervello/Karaoguz disclose the method, of claim 10, and further disclose the test sequence is initiated by the at least one user device, and the packets are transmitted to the access point device and returned from the access point device to the at least one user device (Cervello, paragraph 0028, note when the user device moves away from its existing access device weakening its signal strength transmission and a new channel selection is initiated, hence the test sequence is initiated by the user device).

Referring to claim 12, the combination of Cervello/Karaoguz disclose the method of claim 10, and further disclose the test sequence is initiated by the access point device,
and the packets are transmitted from the access point device to the at least one user device (Cervello, paragraphs 0025-0031).

Referring to claim 15, the combination of Cervello/Karaoguz disclose the method of claim 1 (as rejected above).

The combination of Cervello/Karaoguz does not specifically disclose the generated instruction comprises an indication of a particular seating location in a group of seating locations within a given facility.

At the time the invention was made, it would have been to a person of ordinary skill in the art to provide the system of Cervello/Karaogus to comprise a particular seating location in a group of seating locations within a given facility, e.g., a restaurant. Applicant has not disclosed that a particular seating location in a group of seating locations within a given facility provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any particular area because it would not matter if the particular area were an area where people were sitting or standing.

Therefore, it would have been obvious to one of the ordinary skill in this art to modify the system of Cervello/Karaogus to obtain the invention as specified in claim 15.

Referring to claim 16, the combination of Cervello/Karaoguz disclose the method of claim 1, and further disclose the user device is compatible with at least one of the 802.11a standard, the 802.11b standard and the 802.11g standard (Cervello, Abstract, and paragraphs 0003, 0006-0008, 0011, 0022-0023, 0025, 0037 and 0045).

Referring to claim 17, Cervello discloses an apparatus for use in a wireless network including a plurality of user devices adaptable for communication with at least one access point device (FIG. 1, Abstract, and paragraphs 0008-0010, "determining whether a new channel to be used by the plurality of wireless station is needed", "system for dynamically selecting a communication link"), the apparatus comprising a processing device having a processor coupled to a memory, the processing device comprising at least one of a user device and an access point device of the wireless network (FIG. 1-2, paragraphs 0008-0010, and 0023-0026, "CPU", "RAM", "ROM"), wherein the processing device is configurable to initiate a test of a communication link associated with at least one of the user devices (Abstract, and paragraphs 0008-0010, and 0023-0026, "determining whether a new channel to be used by the plurality of wireless station is needed").

Cervello does not specifically disclose the processing device generate, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance.

Karaoguz discloses a method of determining optimal cell configuration based upon determined device location, which comprises generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", "a recommendation signal", "Access Point", note that

instruction indicative of an optimal location is recommended. Further note that an evaluation and assessment (testing) of what is the optimal location is performed).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the apparatus of Cervello by providing generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance, as suggested by Karaoguz, motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

Referring to claim 18, Cervello discloses a communication system (Abstract, "system for dynamically selecting a communication link") comprising a wireless network including a plurality of user devices adaptable for communication with at least one access point device (FIGS. 1-2, Abstract, and paragraphs 0008-0010, "determining whether a new channel to be used by the plurality of wireless station is needed"), wherein a test of a communication link between at least one of the user devices and the access point device is initiated (Abstract, and paragraphs 0008-0010, and 0023-0026, "determining whether a new channel to be used by the plurality of wireless station is needed").

Cervello does not specifically disclose, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices is generated, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance.

Karaoguz discloses a method of determining optimal cell configuration based upon determined device location, which comprises generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", "a recommendation signal", "Access Point", note that instruction indicative of an optimal location is recommended. Further note that an evaluation and assessment (testing) of what is the optimal location is performed).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Cervello by providing generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance, as suggested by Karaoguz, motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

Referring to claim 19, Cervello discloses an article of manufacture comprising a machine-readable storage medium storing one or more software programs for use in a wireless network (FIGS. 1-2, Abstract, and paragraphs 0008-0010, and 0023-0026, "CPU", "RAM", "ROM", "determining whether a new channel to be used by the plurality of wireless station is needed") comprising a plurality of user devices adapted for communication with at least one access point device (FIGS. 1-2, Abstract, and paragraphs 0008-0010), wherein the one or more

programs when executed implement the steps of initiating a test of a communication link between at least one of the user devices and the access point device (Abstract, and paragraphs 0008-0010, and 0023-0026, "determining whether a new channel to be used by the plurality of wireless station is needed").

Cervello does not disclose generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance.

Karaoguz discloses a method of determining optimal cell configuration based upon determined device location, which comprises generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", "a recommendation signal", "Access Point", note that instruction indicative of an optimal location is recommended. Further note that an evaluation and assessment (testing) of what is the optimal location is performed).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the article of manufacture of Cervello by providing generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance, as suggested by Karaoguz,

motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

Referring to claim 20, Cervello discloses a method for use in a wireless network (Abstract, "system for dynamically selecting a communication link") comprising a plurality of user devices adapted for communication with at least one access point device (FIGS. 1-2, and paragraphs 0008-0010), the method comprising the steps of initiating a test of a communication link between a user device at a current location and an access point device (FIGS. 1-2, Abstract, and paragraphs 0008-0010, "determining whether a new channel to be used by the plurality of wireless station is needed").

Cervello does not specifically disclose generating, based at least in part on a result of the test, an instruction displayable to a user associated with the user device, the instruction being indicative of another location associated with an improved level of data throughput performance relative to that of the current location.

Karaoguz discloses a method of determining optimal cell configuration based upon determined device location, which comprises generating, based at least in part on a result of the test, an instruction displayable to a user associated with a given one of the user devices, the instruction being indicative of a location at which the given user device is expected to obtain a particular level of data throughput performance (Abstract, 0006, 0041-0042, "optimal location information", "optimal locations", "a recommendation signal", "Access Point", note that instruction indicative of an optimal location is recommended. Further note that an evaluation and assessment (testing) of what is the optimal location is performed).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing generating, based at least in part on a result of the test, an instruction displayable to a user associated with the user device, the instruction being indicative of another location associated with an improved level of data throughput performance relative to that of the current location, , as suggested by Karaoguz, motivation being for the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

3.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889 A1, Karaoguz, and further in view of U.S. Pub. No. 2004/0203698 A1, Comp.

Referring to claim 6, the combination of Cervello/Karaoguz disclose the method method of claim 1.

The combination of Cervello/Karaoguz does not disclose the generated instruction is displayable on a display screen of the user device.

Comp discloses a pre-notification of potential connection loss in a wireless network where instruction is displayable on a display screen of the user device for a potential connection loss (Paragraphs 0022, "display", "notification", "potential loss").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing the generated instruction to be displayable on a display screen of the user device, as suggested by Comp, motivation being for

the purpose of providing the best available signal strength for the user, and consequently making wireless users happy.

4.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889 A1, Karaoguz, and further in view of U.S. Pub. No. 2003/0017858 A1, Kraft et al.

Referring to claim 7, the combination of Cervello/Karaoguz disclose the method of claim 1.

The combination of Cervello/Karaoguz does not disclose the generated instruction is displayable on a display screen that is not part of the user device.

Kraft discloses a data entry method where data is displayed in different display units (Paragraphs 0010 and 0027, "third display").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing the generated instruction to be displayable on a display screen that is not part of the user device, as suggested by Kraft, motivation being for the purpose of providing the strongest available signal strength for the user, and consequently making wireless users happy.

5.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889 A1, Karaoguz, and further in view of U.S. Pub. No. 2004/0052232 A1, Ramaswamy et al.

Referring to claim 13, the combination of Cervello/Karaoguz disclose the method of claim 1.

The combination of Cervello/Karaoguz does not disclose the generating step utilizes information derived from a global positioning system (GPS) in determining the location at which the given user device is expected to obtain a particular level of data throughput performance.

Ramaswamy discloses utilizing global positioning system (GPS) in determining the location at which the given user device is expected to obtain a particular level of data throughput performance (Paragraphs 0017, 0019-0020, and 0022).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing the generating step to utilize information derived from a global positioning system (GPS) in determining the location at which the given user device is expected to obtain a particular level of data throughput performance, as suggested by Ramaswamy, motivation being for the purpose of providing a reliable tracking system.

6.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889 A1, Karaoguz, and further in view of U.S. Patent No. 6,813,501 B2, Kinnunen et al.

Referring to claim 14, the combination of Cervello/Karaoguz disclose the method of claim 1.

The combination of Cervello/Karaoguz does not disclose the generated instruction comprises an indication of a particular area within a given facility.

Kinnunen discloses a location dependent services method, where a particular area within a given facility is chosen for mobile terminals (col. 4, lines 42-67).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the method of Cervello by providing the generated instruction to comprise an indication of a particular area within a given facility, as suggested by Kinnunen, motivation being for the purpose of providing a strong signals in particular areas where communication is likely to experience weak signals.

7.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0060995 A1, Cervello et al., in view of U.S. Pub. No. 2004/0203889 A1, Karaoguz, and further in view of well known prior art (MPEP 2144.03).

Referring to claim 9, the combination of Cervello/Karaoguz disclose the method of claim 1.

The combination of Cervello/Karaoguz does not disclose the test is initiated in conjunction with access to a server connected to the access point via a network.

The examiner takes official notice of the fact that it is well known in the art for access points to be connected to servers via a network.

It would have been obvious to one of the ordinary skill in the art at the time of the invention to provide the test to be initiated in conjunction with access to a server connected to the access point via a network, motivation being for the purpose of providing an efficient and robust network.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rios U.S. Patent No. 6,873, 611 B2 discloses multi-protocol WLAN access point devices in a wireless communication system.

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid, can be reached at (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER
7/4/05